

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (currently amended) An apparatus for securely authenticating a data exchange session with an implantable medical device, comprising:

~~a secure key repository comprising a memory and configured to maintain a crypto key uniquely associated with an implantable medical device to authenticate data during a data exchange session; and~~

~~an external device configured to establish a secure connection through a short range interface with the secure key repository, to authenticate authorization to access data on the implantable medical device by securely retrieving the crypto key from the secure key repository, and to transact the data exchange session using the crypto key to authenticate the data by~~
transitioning to a long range interface comprising a key generator configured to dynamically generate a crypto key for each data exchange session with an implantable medical device;

the external device configured to establish an inductive telemetric link to the implantable medical device and to download the crypto key to the implantable medical device through the inductive telemetric link;

the external device configured to then transact the data exchange session with the implantable medical device through a long range telemetric link authenticated with the crypto key.

2. (cancelled)

3. (previously presented) An apparatus according to Claim 1, further comprising:
an authentication component configured to employ the crypto key during the data exchange session, comprising at least one of:

a command authenticator configured to authenticate commands exchanged through the external device with the implantable medical device and;

a data integrity checker configured to check the integrity of the data received by and transmitted from the external device; and

a data encrypter configured to encrypt the data received by and transmitted from the external device.

4-12. (cancelled)

13. (currently amended) An apparatus according to Claim 14, wherein the external device comprises a programmer.

14. (previously presented) An apparatus according to Claim 13, wherein the crypto key is provided from the programmer to a repeater.

15. (currently amended) An apparatus according to Claim 14, wherein the external device comprises a patient designator.

16-26. (cancelled)

27. (previously presented) An apparatus according to Claim 1, wherein the crypto key comprises at least one of a 128-bit crypto key and a symmetric crypto key.

28. (cancelled)

29. (previously presented) An apparatus according to Claim 1, wherein the implantable medical device comprises at least one of an implantable cardiac device, neural stimulation device, and drug therapy dispensing device.

30-58. (canceled)

59. (currently amended) An apparatus for securely authenticating a data exchange session with an implantable medical device, comprising:

means for dynamically generating ~~maintaining~~ a crypto key uniquely associated with an implantable medical device ~~in a secure key repository~~ to authenticate data during a particular data exchange session;

means for establishing a secure connection through an inductive telemetric ~~short range~~ interface from an external device with an implantable medical device ~~the secure key repository~~;

means for downloading the crypto key from the external device to the implantable medical device via the inductive telemetric interface ~~for authenticating authorization to access data on the implantable medical device by means for securely retrieving the crypto key from the secure key repository~~; and

means for transacting the data exchange session using the crypto key to authenticate the data by transitioning to a long range interface.

60. (canceled)

61. (currently amended) An apparatus according to Claim 1 ~~60~~, wherein the implantable medical device maintains patient health information in an encrypted form.

62-64. (canceled)

65. (currently amended) An apparatus according to Claim 1 ~~60~~, wherein the implantable medical device maintains patient health information in an unencrypted form and is accessible in the unencrypted form exclusively through a short range telemetric connection.

66-67. (canceled)

68. (currently amended) An apparatus according to Claim 1 ~~60~~, wherein the long range interface is augmented using one or more repeaters.

69-81. (canceled)